A Basic Guide for Beginners

ARDUINO IDE INSTALLATION GUIDE

How to get started on Arduino

Arduino - Home

arduino.cc

PROFESSIONAL | EDUCATION | STORE

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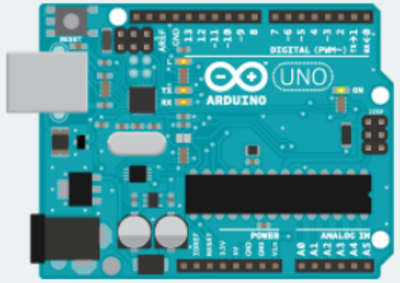
WHAT IS ARDUINO?



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ARDUINO IN THE CLOUD

LATEST

ARDUINO EDUVISION

Holiday Special: Play in Education

December 16th - 5pm CET

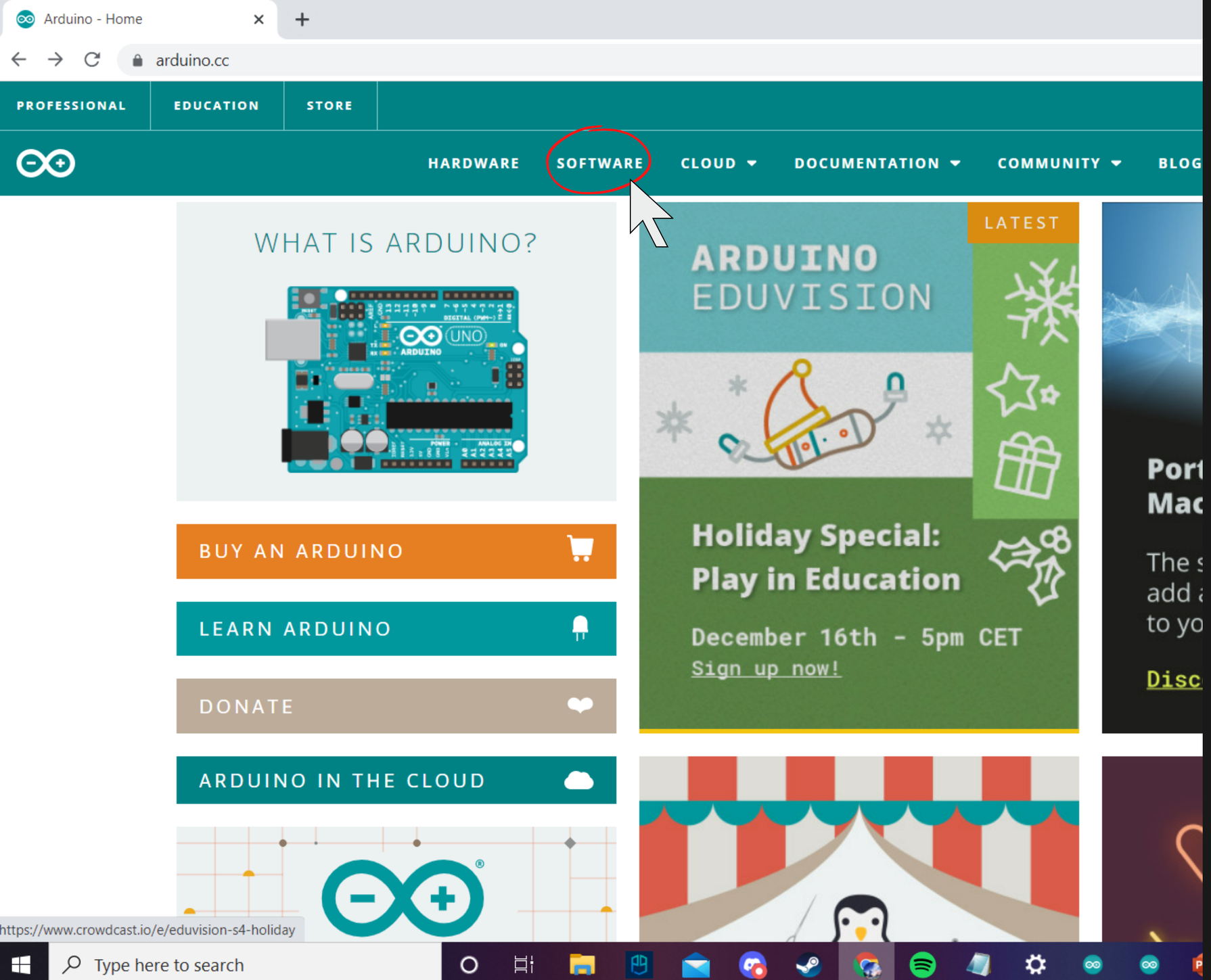
Sign up now!

https://www.crowdcast.io/e/eduvision-s4-holiday

Type here to search

Step I:

Go To arduino.cc



Step 2:

Click on "Software"

If you are unable to find the "software" button, it should be inside the ☰ icon.

Software | Arduino

arduino.cc/en/software

HARDWARE SOFTWARE CLOUD DOCUMENTATION COMMUNITY BLOG ABOUT

Step 3:

Download Arduino IDE based on your OS (Operating System)

Downloads

Arduino IDE 1.8.19

The open-source Arduino Software (IDE) makes it easy to write code and upload it to the board. This software can be used with any Arduino board.

Refer to the Getting Started page for Installation instructions.

SOURCE CODE

Active development of the Arduino software is hosted by GitHub. See the instructions for building the code. Latest release source code archives are available here. The archives are PGP-signed so they can be verified using this gpg key.

DOWNLOAD OPTIONS

Windows Win 7 and newer
Windows ZIP file
Windows app Win 8.1 or 10 Get
Linux 32 bits
Linux 64 bits
Linux ARM 32 bits
Linux ARM 64 bits
Mac OS X 10.10 or newer

Release Notes Checksums (sha512)

Hourly Builds

Download a **preview of the incoming release** with the most updated features and bugfixes.

DOWNLOAD OPTIONS

Windows

Previous Releases

Download the previous version of the current release, the classic 1.0.x, or old beta releases.

DOWNLOAD OPTIONS

Previous Release (1.8.18)

30°C

Windows:

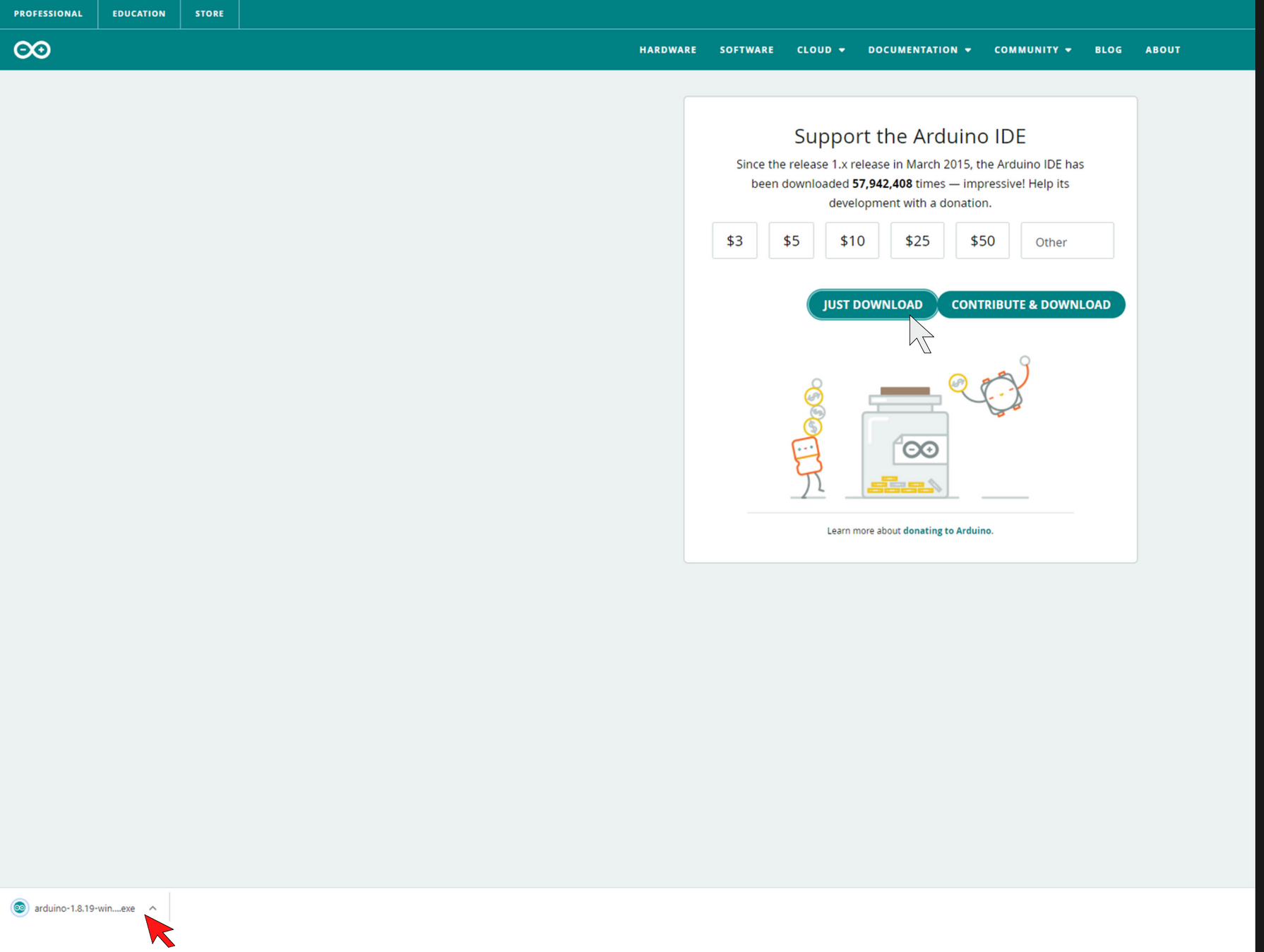
You can get via the Microsoft store or download the ZIP file/file.

Linux:

Check which OS(Operating System) your computer is based on and download accordingly

Mac OS:

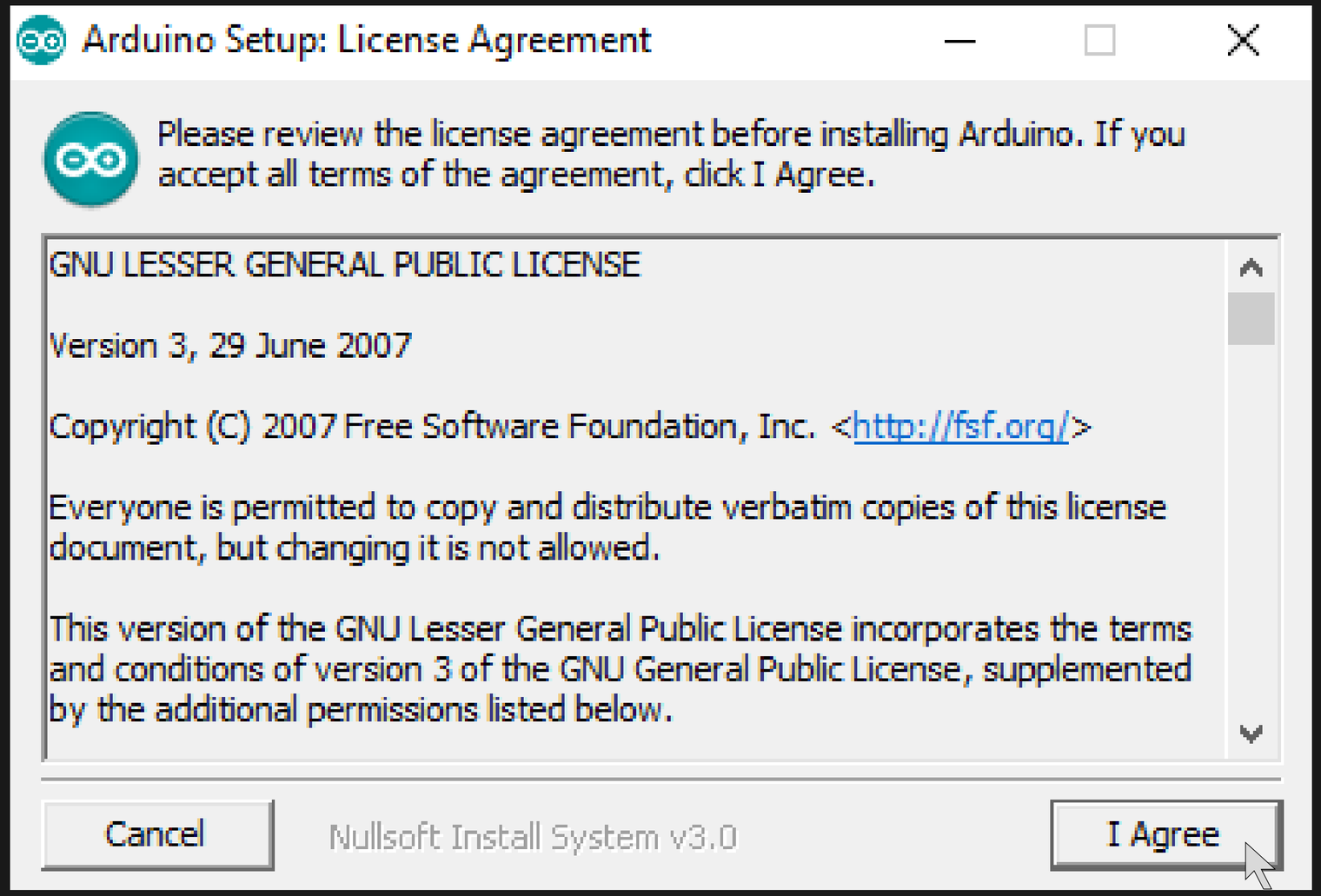
The only option



Step 4:

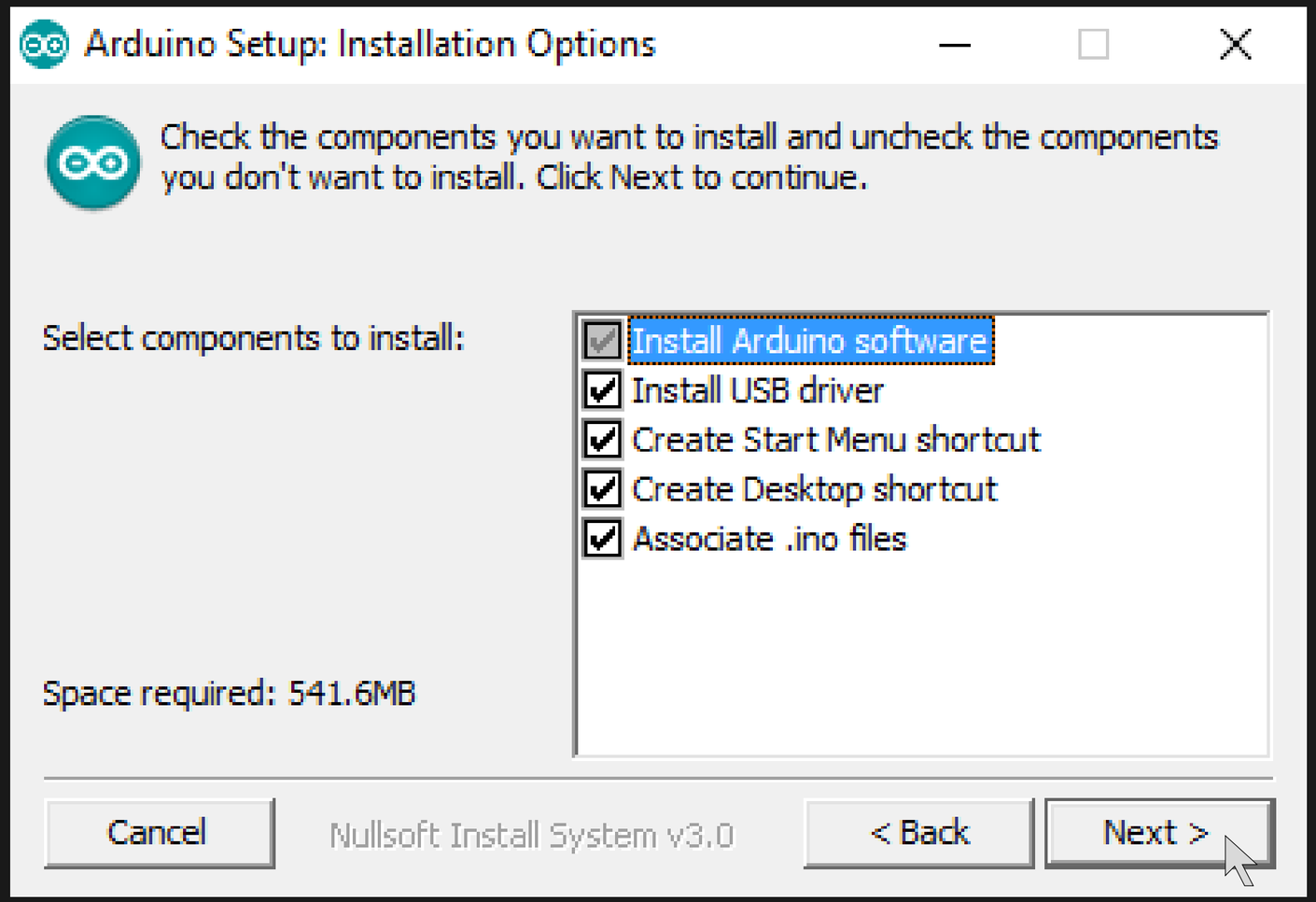
Click on "Just Download"
If you want to donate, key the value you want to donate and click "Contribute & Download"

Once the download finish, the Installation starts. Click on the file where the red arrow is pointing to start the installation



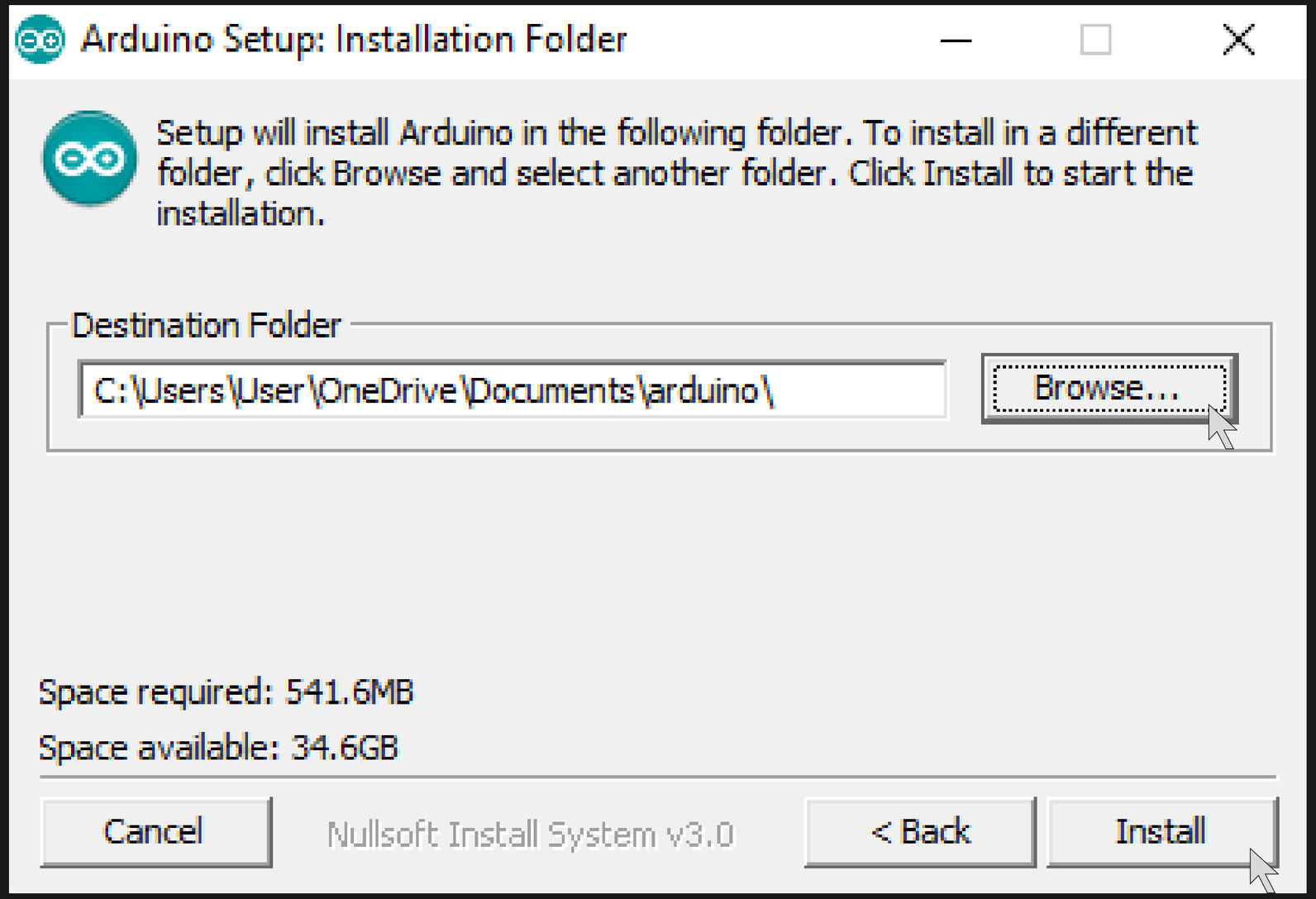
Step 5:

Read through the agreement and click "I agree"



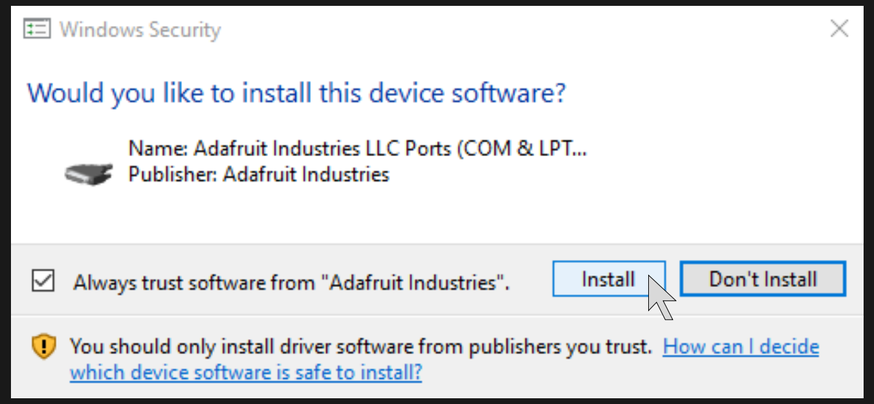
Step 6:

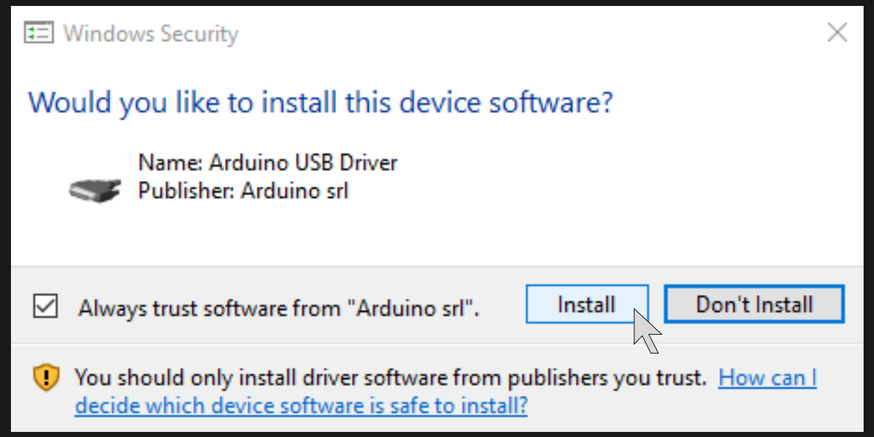
Make sure all the components are ticked and click "Next"

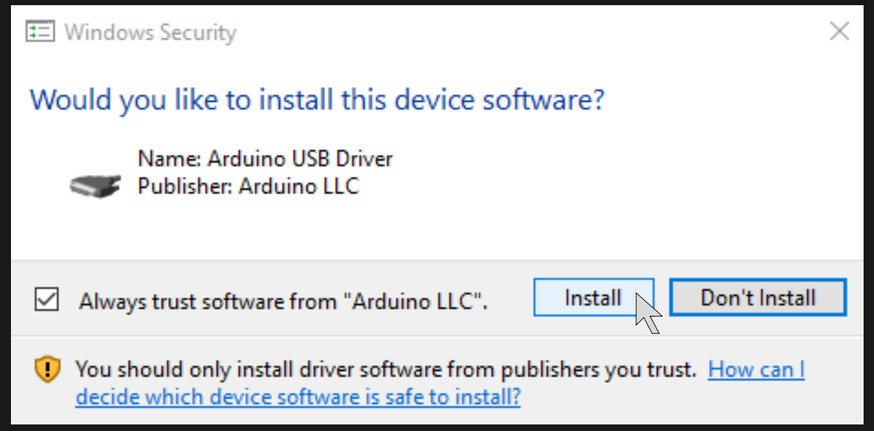


Step 7:

Click "Browse" to search for a place to install the files and once you are satisfied, click "Install".







Step 8:

Three Windows Security message should pop up, asking for permission to install. Click on "Install" on all 3 of the pop ups

ARUDINO IDE UI GUIDE

Now that you have installed the Arduino IDE. It is time to start tinkering with the Arduino. Before that, let me to introduce to the UI(User Interface) in the Arduino IDE and what they do.

SOME ARDUINO TERMINOLOGY

Source code

The code you write in your text editor

Sketch

Think of them as files for source codes.

Syntax Errors

Like most languages, programming languages have their own "Grammar rules". These are called syntaxes. Syntax error means your code has "grammatical errors". Eg. Missing semi-colon after a statement or missing curly brackets.

```
void loop()
{
  // put your main code here, to run repeatedly:
  int x = 10;
  if(x > 5)
  {
   Serial.print("x is larger than 5.\n");
   Serial.print("Hello World!")
  }
  else
  {
   Serial.print("x is smaller than 5.\n");
   Serial.print("Hello World!");

}
```

sketch_dec27a | Arduino 1.8.19

File Edit Sketch Tools Help

sketch_dec27a §

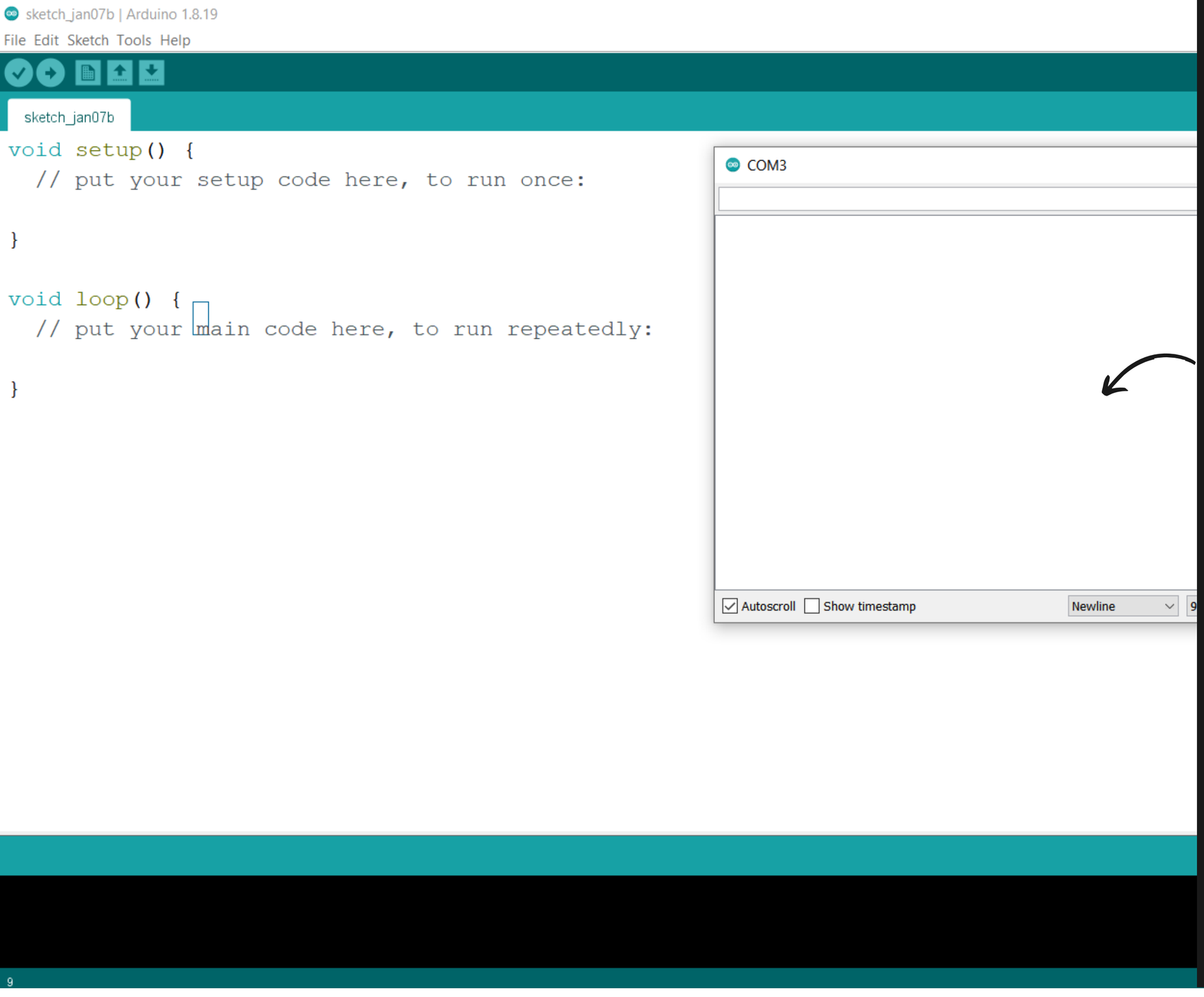
```
void loop()
{
  // put your main code here, to run repeatedly:
  int x = 10;
  if(x > 5)
  {
   Serial.print("x is larger than 5.\n");
   Serial.print("X is ")
   Serial.print(x);
  }
  else
  {
   Serial.print("x is smaller than 5.\n");
   Serial.print("X is ")
   Serial.print(x);

}
```

21

Type here to search

Text Editor:

This is where you are going to write your source code for the Arduino boards here.



Serial Monitor:

This is where you are going to see the errors the compiler highlight. (For debugging issues)

Press Ctrl + Shift + M to access it

sketch_dec27a §

```
void loop()
{
  // put your main code here, to run repeatedly:
  int x = 10;
  if(x > 5)
  {
   Serial.print("x is larger than 5.\n");
   Serial.print("X is ")
   Serial.print(x);
  }
  else
  {
   Serial.print("x is smaller than 5.\n");
   Serial.print("X is ")
   Serial.print(x);

}
```

Verify :

This button will check your source code in the current sketch for any syntax errors.

sketch_dec27a §

```
void loop()
{
  // put your main code here, to run repeatedly:
  int x = 10;
  if(x > 5)
  {
   Serial.print("x is larger than 5.\n");
   Serial.print("X is ")
   Serial.print(x);
  }
  else
  {
   Serial.print("x is smaller than 5.\n");
   Serial.print("X is ")
   Serial.print(x);


}
```

Upload :

This button will upload your source code in the current sketch to the Arduino board that is plugged in

sketch_dec27a §

```
void loop()
{
  // put your main code here, to run repeatedly:
  int x = 10;
  if(x > 5)
  {
   Serial.print("x is larger than 5.\n");
   Serial.print("X is ")
   Serial.print(x);
  }
  else
  {
   Serial.print("x is smaller than 5.\n");
   Serial.print("X is ")
   Serial.print(x);


}
```

New  :

This button allows you to open a new sketch.

sketch_dec27a §

```
void loop()
{
  // put your main code here, to run repeatedly:
  int x = 10;
  if(x > 5)
  {
   Serial.print("x is larger than 5.\n");
   Serial.print("X is ")
   Serial.print(x);
  }
  else
  {
   Serial.print("x is smaller than 5.\n");
   Serial.print("X is ")
   Serial.print(x);

}
```

Open :

This button opens up your saved sketch.

sketch_dec27a §

```
void loop()
{
  // put your main code here, to run repeatedly:
  int x = 10;
  if(x > 5)
  {
   Serial.print("x is larger than 5.\n");
   Serial.print("X is ")
   Serial.print(x);
  }
  else
  {
   Serial.print("x is smaller than 5.\n");
   Serial.print("X is ")
   Serial.print(x);

}
```

Save  :

This button save your current sketch

SOME TIPS ON USING THE ARDUINO IDE

- **There is some shortcuts you can use for the arduino IDE**

  One example is by holding down Ctrl/Cmd key and scrolling with your middle scorll mouse button, it will zoom in or out.

  Press Ctrl/Cmd + Shift + M to access the serial monitor

  and many more...!

  More shortcuts can be found in :
  https://shortcutworld.com/Arduino/win/Arduino_Shortcuts

THE END